Searlesite is rather soft and is readily fusible. It is soluble in hydrochloric acid with gelatinization and appreciably soluble in water. The optical properties are:

$\alpha = 1.520$ 2 E very large
$\gamma = 1.528$ Maximum extinction angle large

After correction for insoluble minerals and for calcite the chemical analysis corresponds approximately to $Na_2O.B_2O_3.4SiO_2.2H_2O$.

BOTANY.—*The genus Arthrocnemum in North America.* Paul C. Standley, National Museum.[1]

Arthrocnemum is one of the smaller genera of the Chenopodiaceae, similar in general appearance to Salicornia, but distinguished by its glabrous seeds, with rather copious endosperm, and by having distinct perianths, which are not immersed in the joints of the flowering spikes but project from them rather conspicuously. In Salicornia the seeds are without endosperm and are covered with numerous short hairs, while the flowers are coalescent and immersed in the joints.

About eight species of Arthrocnemum are known, all natives of the coasts of the warmer parts of Europe, Asia, Africa, and Australia. No true representative of the genus has ever been reported as such from North America, although Moquin[2] referred *Salicornia ambigua* Michx. to it with doubt. That species, however, is a true Salicornia.

In 1898 Mr. S. B. Parish described a new Salicornia from southern California. His description alone would exclude the plant from the genus, for he describes the seed as "smooth." This character, however, would not seem remarkable to one who had studied Sereno Watson's treatment of Salicornia,[3] for that writer says, under *S. ambigua*, "*S. fruticosa* of the Old World differs in being erect, stouter and more branched, the seed larger and smooth." The European plant to which Watson referred is

[1] Published by permission of the Secretary of the Smithsonian Institution.
[2] Chenop. Enum. 112. 1840.
[3] Proc. Am. Acad. **9**: 123-125. 1874.

properly known as *Arthrocnemum glaucum* (Delile) Ung. Sternb.,[4] while the Linnaean *Salicornia fruticosa* is a true Salicornia, with pubescent seeds. These two plants have been greatly confused by Old World botanists.[5]

Salicornia subterminalis is undoubtedly a member of the genus Arthrocnemum. While closely related to *A. glaucum* of the Mediterranean region it appears distinct in its much narrower, more acute spikes, numerous slender, erect branches, and pale seeds. The form of the inflorescence, too, is peculiar. The flowering spikes usually do not terminate the branches, but themselves terminate in long sterile branches. The flowering joints may be found almost anywhere along the young branches; sometimes they are solitary, but more often there are 3 to 14 together. The plant of the Pacific Coast may, therefore, be known as below. The Mexican specimens come from a locality far distant from southern California. It is probable that, when the coastal regions of Sonora and Lower California have been more thoroughly explored, the plant will be found at intervening stations.

Arthrocnemum subterminale (Parish) Standley.

?*Arthrocnemum fruticosum californicum* Moq. in DC. Prodr. **13**[2]: 151. 1849.—Type collected in California by Nuttall ("*Salicornia californica* Nutt.! in herb."). The description is very brief but seems to indicate the present plant.

Salicornia ambigua S. Wats. Proc. Am. Acad. **9**: 125. 1874, in part; not Michx.—The Wilkes specimen listed below was doubtless referred here by Watson, who cites Wilkes among the collectors. The Wilkes Expedition, however, collected specimens of *S. ambigua*, also.

Salicornia subterminalis Parish, Erythea **6**: 87. 1898.—Type from San Jacinto Plains, California, *S. B. & W. F. Parish* 1520.

Specimens have been examined from the following localities:

California: San Francisco Bay, *Wilkes Expl. Exped.* 1204. Near Bakersfield, *Coville & Funston* 1234. Menifee, *Parish* 4463. San Jacinto Plains, *S. B. & W. F. Parish* 1520. Ballona marshes, near Mesmer, *Abrams* 2565. San Diego, *Wooton; K. Brandegee.* Vicinity of Monument 258, Pacific coast, *Mearns* 3930. Avalon, Santa Catalina Island, *Trask.*

Mexico: Topolobampo, Sinaloa, *Rose, Standley, & Russell* 13286.

[4] See Asch. & Graebn. Syn. Fl. Mitt. Eur. **5**: 190. 1913.

[5] See C. E. Moss. Some species of Salicornia, Journ. Bot. Brit. & For. **49**: 177–185. 1911.